



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,244	12/20/2001	Tadabumi Tomita	019519-342	7159

7590

02/04/2003

Platon N. Mandros
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

GILLIAM, BARBARA LEE

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,244

Applicant(s)

TOMITA ET AL.

Examiner

Barbara Gilliam

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-11 are pending.
2. Claims 2 and 7 are product-by-process claims. Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/20/2000. It is noted, however, that applicant has not filed a certified copy of the 2000-387210 application as required by 35 U.S.C. 119(b).
4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 1/18/2001. It is noted, however, that applicant has not filed a certified copy of the 2001-009871 application as required by 35 U.S.C. 119(b).
5. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 4/3/2001. It is noted, however, that applicant has not filed a certified copy of the 2001-0104632 application as required by 35 U.S.C. 119(b).
6. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 7/6/2001. It is noted, however, that applicant has not filed a certified copy of the 2001-206572 application as required by 35 U.S.C. 119(b).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17-18 of copending Application No. 09/854,691. Although the conflicting claims are not identical, they are not patentably distinct from each other because in copending Application No. 09/854691, Endo et al claim a presensitized plate comprising an aluminum support subjected to graining treatment and anodizing treatment, an anodized layer comprising micropores and a recording layer containing an infrared absorbent and a high-molecular compound insoluble in water and soluble in an alkali aqueous solution (claims 17-18). The anodized layer and recording layer of Endo et al meet the present limitations for the anodic oxide film layer and the image-forming layer (and the light-sensitive layer) of the present application respectively.

b. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-2, 4-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 of copending Application No. 09/730,842. Although the conflicting claims are not identical, they are not patentably distinct from each other because in copending Application No. 09/730,842, Sawada et al claim a planographic printing plate precursor comprising an aluminum substrate which has been subjected to a roughening treatment and an anodizing treatment which forms an anodized film on the surface of the substrate. The plate further comprises a photosensitive layer provided on the substrate, which contains an infrared absorbing agent and a water-insoluble and alkali aqueous solution soluble polymer compound (claim 1). Micropores present in the anodized film have a pore diameter of 1 to 5 and a pore density of 8×10^{15} to $2 \times 10^{16}/\text{m}^2$ ($8000/\mu\text{m}^2$ to $2 \times 10^{11}/\mu\text{m}^2$) (claim 2). The anodized film layer meets the present limitations for the anodic oxide film layer wherein the micropores meet the present limitations for the pores of the present application. The photosensitive layer comprising the infrared absorbing agent meets the present limitations for the image-forming layer containing a light-to-heat converting agent and the light-sensitive layer. The copending Application does not claim the thickness or diameters of the micropores or the void ratio of the anodized layer however the pore density range of the present application falls within the pore density range of the prior art. Therefore the Examiner asserts one of ordinary skill in the art would expect other measurable characteristics of the anodized film layer of the prior art to at least overlap with those of the present application. Therefore it would

Art Unit: 1752

have been obvious to one of ordinary skill in the art to make an infrared sensitive planographic printing plate precursor comprising an aluminum substrate, an anodized film comprising micropores having a pore diameter of 1 to 5 and a pore density of 8×10^{15} to $2 \times 10^{16}/\text{m}^2$ ($8000/\mu\text{m}^2$ to $2 \times 10^{11}/\mu\text{m}^2$) and a photosensitive layer comprising an infrared absorbing agent and a water-insoluble and alkali aqueous solution soluble polymer compound based on the claims of Sawada et al.

b. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims ²⁻⁹ of copending Application No. 09/826888. Although the conflicting claims 2-9 are not identical, they are not patentably distinct from each other because in copending Application No. 09/826,888, Hotta claims a planographic printing plate comprising an aluminum substrate comprising a roughened surface including an anodic oxide coating and a recording layer provided on the substrate. The anodic oxide coating can contain micropores exposed on the surface including diameters of not more than 15 nm (claim 1). The support can further comprise a sealing treatment applied on the anodic oxidation coating (claim 2). The recording layer can be a thermal type photosensitive layer directly writable by exposure to an infrared laser comprising infrared absorbing agent(s) (claims 6-9). The thermal photosensitive layer meets the present limitations for the image-recording layer and the light-sensitive layer. The anodic oxide coating meets the present limitations for the anodic oxide film layer. The copending Application

Art Unit: 1752

does not claim the thickness of the micropores or the void ratio of the anodized layer however the micropores have diameters of not more than 15 nm and a density from 1000 kg/m³ to 3200 kg/m³. The pore density is expressed differently in the prior art however it is clear the pore density of the prior art overlaps with the pore density range of 2,500/μm² or less of the present application. Therefore the Examiner asserts one of ordinary skill in the art would expect other measurable characteristics such as void ratio of the anodized film layer of the prior art to at least overlap with those of the present application. It would have been obvious to one of ordinary skill in the art to make a planographic printing plate comprising an aluminum substrate comprising a roughened surface including an anodic oxide coating containing micropores and a thermal recording layer with reasonable expectation of obtaining a printing plate sensitive to infrared radiation based on the teachings of Hotta.

b. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 1-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,468,717. Although the conflicting claims are not identical, they are not patentably distinct from each other because in US Patent No. 6,468,717, Kita et al claim a heat-sensitive lithographic printing plate precursor which comprises an aluminum support, an anodic oxide film having provided thereon an ink-receptive layer, a hydrophilic layer and a water-soluble overcoat layer wherein at least one of the layers contains a compound capable of converting light into heat. The anodic oxide film has been subjected to a

sealing treatment (claim 1). The anodic oxide film layer meets the present limitations for the anodic oxide film layer. Whichever layer comprising the compound capable of converting light into heat of Kita et al meets the present limitations for the image-forming layer and the light-sensitive layer. Kita et al does not claim any pores of the anodic oxide film layer however, the Examiner asserts one of ordinary skill in the art would expect the anodic oxide film layer of Kita et al to also contain pores because the substrate of the present application and the substrate of the prior art have both undergone anodizing treatment wherein anodic oxide film layers are obtained and subjected to a sealing treatment. Further the Examiner asserts one of ordinary skill in the art would expect the pores of the anodic oxide film layers to have similar void ratios, thickness, diameters and densities. Therefore it would have been obvious to make a heat-sensitive lithographic printing plate precursor comprising an aluminum support, a sealed anodic oxide film, an ink-receptive layer, a hydrophilic layer and a water-soluble overcoat layer wherein at least one of the layers contains a compound capable of converting light into heat based on the teachings of Kita et al.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

Art Unit: 1752

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

13. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Akiyama et al.

14. a. In US Patent Application Publication No. 2002/0033108, Akiyama et al teach a heat sensitive lithographic printing plate precursor which comprises a substrate having thereon an anodic oxidation layer having uniformly distributed micropores of an average pore size of 6 to 40 nm and a hydrophilic layer containing at least one kind of particles (abstract & claims 1-13) having a size of 0.01 to 50 μm , preferably 0.1 to 1.0 μm (page 8, paragraphs [0097] & [0107]). A pore-sealing treatment can be applied after a pore widening treatment (page 4, paragraph [0047]). The anodic oxidation layer meets the present limitations for the anodic oxidation film layer. The hydrophilic layer contains fine particles of a heat-fusible hydrophobic thermoplastic polymer, fine particles having thermally reactive functional groups, or microcapsules in which compounds having heat-reactive functional groups are encapsulated (claims 5-6 & page 7, paragraph [0093]). The precursor can form images by direct imagewise recording, e.g., with a thermal head, an infrared laser, etc. wherein solid-state high-output infrared ray lasers are preferred (page 17, paragraph [0175]). The hydrophilic layer of the prior art which is capable of forming an image by direct imagewise recording with an infrared laser meets the present limitations for the light-sensitive layer capable of image-forming with infrared laser exposure. To the hydrophilic layer, a light-to-heat converting agent can be added for the purpose of enhancing the sensitivity. Such a light to heat

Art Unit: 1752

converting agent by be any of light absorption materials having an absorption band in at least part of the wavelength range of 700 to 1,200 nm (page 11, paragraph [0149]).

When the hydrophilic layer comprises the light-to heat converting agent, it meets the present limitations for the image-forming layer of the present application. The layer further meets the present limitations (of claim 8) for the particle layer because of the particles contained therein having a size of 0.01 to 50 μm . The precursor can further comprises a watersoluble overcoat layer that contains a light-to heat converting agent (claims 11-12). The watersoluble overcoat layer comprising the light-to-heat converting agent meets the present limitations for the heat-sensitive layer capable of forming an image with infrared laser exposure of present claim 8. Akiyama et al does not teach the density of the micropores in the anodic oxidation layer however, the Examiner asserts one of ordinary skill in the art would expect the micropore density of the anodic oxidation film layer of Akiyama et al to be within the required range of the present application because of overlap of the pore diameters. Further both the anodic oxide layers of the present application and of the prior art are subjected to a sealing treatment. The Examiner asserts one of ordinary skill in the art would expect the pores of the anodic oxide film layers to have similar void ratios and thickness.

15. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Endo et al.

a. In US Patent Application Publication No. 2002/0094490, Endo et al claim a presensitized plate comprising an aluminum support subjected to graining treatment and anodizing treatment, an anodized layer comprising micropores and a recording layer containing an infrared absorbent and a high-molecular compound insoluble in

water and soluble in an alkali aqueous solution (claims 17-18). The anodized layer and recording layer of Endo et al meet the present limitations for the anodic oxide film layer and the image-forming layer (and the light-sensitive layer) of the present application respectively.

16. Claims 1-2, 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Sawada et al.

a. In US Patent Application Publication No. 2001/0041305, Sawada et al claim a planographic printing plate precursor comprising an aluminum substrate which has been subjected to a roughening treatment and an anodizing treatment which forms an anodized film on the surface of the substrate. The plate further comprises a photosensitive layer provided on the substrate, which contains an infrared absorbing agent and a water-insoluble and alkali aqueous solution soluble polymer compound (claim 1). Micropores present in the anodized film have a pore diameter of 1 to 5 and a pore density of 8×10^{15} to $2 \times 10^{10}/\text{m}^2$ ($8000/\mu\text{m}^2$ to $2 \times 10^{-11}/\mu\text{m}^2$) (claim 2). Particularly a method in which anodizing is conducted under high current density in sulfuric acid electrolyte is preferable (page 6, paragraph [0071]). The anodized film layer meets the present limitations for the anodic oxide film layer wherein the micropores meet the present limitations for the pores of the present application. The photosensitive layer comprising the infrared absorbing agent meets the present limitations for the image-forming layer containing a light-to-heat converting agent and the light-sensitive layer. The copending Application does not claim the thickness or diameters of the micropores or the void ratio of the anodized layer however the pore density range of the present

Art Unit: 1752

application falls within the pore density range of the prior art. Therefore the Examiner asserts one of ordinary skill in the art would expect other measurable characteristics of the anodized film layer of the prior art to at least overlap with those of the present application.

17. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hotta.

a. In US Patent Application Publication No. 2002/0039702, Hotta claims a planographic printing plate comprising an aluminum substrate comprising a roughened surface including an anodic oxide coating and a recording layer provided on the substrate. The anodic oxide coating can contain micropores exposed on the surface including diameters of not more than 15 nm (claim 1). The support can further comprise a sealing treatment applied on the anodic oxidation coating (claim 2). The recording layer can be a thermal type photosensitive layer directly writable by exposure to an infrared laser comprising infrared absorbing agent(s) (claims 6-9). The thermal photosensitive layer meets the present limitations for the image-recording layer and the light-sensitive layer. The anodic oxide coating meets the present limitations for the anodic oxide film layer. The copending Application does not claim the thickness of the micropores or the void ratio of the anodized layer however the micropores have diameters of not more than 15 nm and a density from 1000 kg/m³ to 3200 kg/m³. The pore density is expressed differently in the prior art however it is clear the pore density of the prior art overlaps with the pore density range of 2,500/μm² or less of the present application. Therefore the Examiner asserts one of ordinary skill in the art would expect

Art Unit: 1752

other measurable characteristics such as void ratio of the anodized film layer of the prior art to at least overlap with those of the present application.

18. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Kita et al.

a. In US Patent No. 6,468,717, Kita et al claim a heat-sensitive lithographic printing plate precursor which comprises an aluminum support, an anodic oxide film having provided thereon an ink-receptive layer, a hydrophilic layer and a water-soluble overcoat layer wherein at least one of the layers contains a compound capable of converting light into heat. The anodic oxide film has been subjected to a sealing treatment (claim 1). The method of anodizing in sulfuric acid at high electric current and anodizing with phosphoric acid as the electrolytic bath are particularly preferred (column 3, lines 39-43). The anodic oxide film layer meets the present limitations for the anodic oxide film layer. Whichever layer comprising the compound capable of converting light into heat of Kita et al meets the present limitations for the image-forming layer and the light-sensitive layer of the present application. Kita et al does not claim any pores of the anodic oxide film layer however, the Examiner asserts one of ordinary skill in the art would expect the anodic oxide film layer of Kita et al to also contain pores because the substrate of the present application and the substrate of the prior art have both undergone anodizing treatment wherein anodic oxide film layers are obtained and subjected to a sealing treatment. Further the Examiner asserts one of ordinary skill in the art would expect the pores of the anodic oxide film layers to have similar void ratios, thickness, diameters and densities.

Allowable Subject Matter

19. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter:

a. The hydrophilic layer of Akiyama et al (in US Patent Application No. 2002/0033108) are not formed by electrolytic treatment of the aluminum support as required in the instant application. The particles are heat-fusible hydrophobic thermoplastic fine particles, finely divided polymers having thermally reactive functional groups and microcapsules in which compounds having heat-reactive functional groups are encapsulated (abstract).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US Patent Application No. 2002/0160308, Nishino et al teach a method for producing a support for planographic printing plates.

b. In US Patent Application No. 2002/0056648, Sawada et al each a process for producing an aluminum support for a planographic printing plate.

c. In US Patent No. 6,340,426, Uesugi teaches an electrolytic treatment method.

Art Unit: 1752

d. In US Patent No. 6,045,681, Mori teaches a method of surface roughening an aluminum support.

e. In US Patent No. 5,807,659, Nishimiya et al teach a photosensitive printing plate.

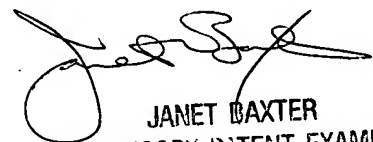
22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 703-305-1330. The examiner can normally be reached on Monday through Friday, 8:00 AM - 6:00 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

b. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

B. Gilliam

B. Gilliam
January 25, 2003


JANET BAXTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700